



SAFETY HEALTH AND
ENVIRONMENTAL AFFAIRS

SEP 15 1992

ORIGINAL

MATERIAL SAFETY DATA SHEET

PRODUCT

NALCO 8325 LIQUID

Emergency Telephone Number

Medical (708) 920-1510 (24 hours)

SECTION 1 PRODUCT IDENTIFICATION

TRADE NAME: NALCO 8325 LIQUID

DESCRIPTION: An aqueous blend of nitrite, molybdate, acrylate

NFPA 704M/HMIS RATING: 3/3 HEALTH 1/1 FLAMMABILITY 0/0 REACTIVITY 0 OTHER
0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme

SECTION 2 HAZARDOUS INGREDIENTS

Our hazard evaluation has identified the following chemical ingredient(s) as hazardous under OSHA's Hazard Communication Rule, 29 CFR 1910.1200. Consult Section 14 for the nature of the hazard(s).

INGREDIENT(S)	CAS #	APPROX. %
Sodium hydroxide	1310-73-2	1-5
Sodium nitrite	7632-00-0	20-40
Sodium molybdate	7631-95-0	1-5

SECTION 3 PRECAUTIONARY LABEL INFORMATION

WARNING: Harmful or fatal if swallowed. Contains sodium nitrite. Causes blood system disorders when swallowed. Do not take internally. Causes irritation to skin and eyes. Do not get in eyes, on skin or on clothing. Wear goggles and face shield when handling.

Empty containers may contain residual product. Do not reuse container unless properly reconditioned.

SECTION 4 FIRST AID INFORMATION

EYES: Immediately flush for at least 15 minutes while holding eyelids open. Call a physician at once.

SKIN: Immediately flush with water for at least 15 minutes. For a large splash, flood body under a shower. Call a physician at once.

INGESTION: Induce vomiting. Give water. Call a physician at once.

INHALATION: Remove to fresh air. Treat symptoms. Call a physician at once.

NOTE TO PHYSICIAN: Based on the individual reactions of the patient, the physician's judgment should be used to control symptoms and clinical condition.

CAUTION: If unconscious, having trouble breathing or in convulsions, do not induce vomiting or give water.



MATERIAL SAFETY DATA SHEET

PRODUCT

NALCO 8325 LIQUID

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SECTION 4 FIRST AID INFORMATION

(CONTINUED)

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression and convulsions may be needed.

SECTION 5 HEALTH EFFECTS INFORMATION

PRIMARY ROUTE(S) OF EXPOSURE: Eye, Skin

EYE CONTACT: Can cause severe irritation.
SKIN CONTACT: Can cause severe irritation.
INGESTION: Can be harmful or fatal.

SYMPTOMS OF EXPOSURE:

CHRONIC: Sodium nitrite. Causes formations of methaemoglobinaemia leading to cyanosis and possible death if ingested. Repeated ingestion of small amounts causes blood pressure to drop, rapid pulse, headaches and visual disturbances. Causes central nervous system effects, (e.g. headaches, tremors, drowsiness and convulsions).

AGGRAVATION OF EXISTING CONDITIONS: Sodium nitrite. Pregnant women are particularly sensitive to methaemoglobinaemia.

SECTION 6 TOXICOLOGY INFORMATION

ACUTE TOXICITY STUDIES: Acute toxicity studies have not been conducted on this product, but toxicity studies of the ingredient(s) in Section 2 have been reviewed. The results are shown below.

ACUTE ORAL TOXICITY (ALBINO RATS):

Sodium nitrite LD₅₀ = 85 mg/kg

SECTION 7 PHYSICAL AND CHEMICAL PROPERTIES

COLOR: Clear to hazy, colorless to amber	FORM: Liquid	ODOR: None
DENSITY: 10.8-11.0 lbs/gal.		
SPECIFIC GRAVITY: 1.30-1.32 @ 77 Degrees F		ASTM D-1298
pH (NEAT) = 12.5-14.0		ASTM E-70
VISCOSITY: 9 cps @ 60 Degrees F		ASTM D-2983
FREEZE POINT: -6 Degrees F		ASTM D-1177
BOILING POINT: 223 Degrees F @ 760 mm Hg		ASTM D-86
FLASH POINT: None (PMCC)		ASTM D-93

NOTE: These physical properties are typical values for this product.



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SECTION 8 FIRE AND EXPLOSION INFORMATION

FLASH POINT: None (PMCC) ASTM D-93

EXTINGUISHING MEDIA: Not applicable

UNUSUAL FIRE AND EXPLOSION HAZARD: None

SECTION 9 REACTIVITY INFORMATION

INCOMPATIBILITY: Avoid contact with strong acids (eg. sulfuric, phosphoric, nitric, hydrochloric, chromic, sulfonic) which can generate heat, splattering or boiling and the release of toxic fumes.

STORAGE: Storage tanks should be stainless steel or polyethylene.

THERMAL DECOMPOSITION PRODUCTS: In the event of combustion CO, CO₂ may be formed. Do not breathe smoke or fumes. Wear suitable protective equipment.

SECTION 10 PERSONAL PROTECTION EQUIPMENT

RESPIRATORY PROTECTION: If it is possible to generate significant levels of vapors or mists, a NIOSH approved or equivalent respirator is recommended.

For large spills, entry into large tanks, vessels or enclosed small spaces with inadequate ventilation, a pressure-demand, self-contained breathing apparatus is recommended.

VENTILATION: General ventilation is recommended. Additionally, local exhaust ventilation is recommended where vapors, mists or aerosols may be released.

PROTECTIVE EQUIPMENT: Wear impermeable gloves, boots, apron and a face shield with chemical splash goggles. Examples of impermeable gloves available on the market are neoprene, nitrile, PVC, natural rubber, viton and butyl (compatibility studies have not been performed). A full slicker suit is recommended if gross exposure is possible.

The availability of an eye wash fountain and safety shower is recommended.

If clothing is contaminated, remove clothing and thoroughly wash the affected area. Launder contaminated clothing before reuse.

SECTION 11 SPILL AND DISPOSAL INFORMATION

IN CASE OF TRANSPORTATION ACCIDENTS, CALL THE FOLLOWING 24-HOUR TELEPHONE NUMBER (708-920-1510)



MATERIAL SAFETY DATA SHEET

PRODUCT

NALCO 8325 LIQUID

Emergency Telephone Number

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SECTION 11 SPILL AND DISPOSAL INFORMATION

(CONTINUED)

SPILL CONTROL AND RECOVERY:

Small liquid spills: Contain with absorbent material, such as clay, soil or any commercially available absorbent. Shovel reclaimed liquid and absorbent into recovery or salvage drums for disposal. Refer to CERCLA in Section 14.

Large liquid spills: Dike to prevent further movement and reclaim into recovery or salvage drums or tank truck for disposal. Refer to CERCLA in Section 14.

For large indoor spills, evacuate employees and ventilate area. Those responsible for control and recovery should wear the protective equipment specified in Section 10.

DISPOSAL: If this product becomes a waste, it meets the criteria of a hazardous waste as defined under the Resources Conservation and Recovery Act (RCRA) 40 CFR 261. Hazardous Waste D002.

As a hazardous liquid waste, it must be solidified with stabilizing agents (such as sand, fly ash, or cement) so that no free liquid remains before disposal to a licensed industrial waste landfill (Hazardous Waste Treatment, Storage and Disposal facility). A hazardous liquid waste can also be deep-well injected in accordance with local, state, and federal regulations.

SECTION 12 ENVIRONMENTAL INFORMATION

CHEMICAL OXYGEN DEMAND (COD): 150,000 mg/L

TOTAL ORGANIC CARBON (TOC): 36,000 mg/L

AQUATIC DATA:

Results below are based on a similar product.

96 hour static acute LC_{50} to Rainbow Trout = 35 mg/L

96 hour no observed effect concentration is 18 mg/L based on no mortality or abnormal effects.

TOXICITY RATING: Moderately toxic

96 hour static acute LC_{50} to Fathead Minnow = Greater than 320 mg/L

96 hour no observed effect concentration is 320 mg/L based on no mortality or



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SECTION 12 ENVIRONMENTAL INFORMATION

(CONTINUED)

abnormal effects.

TOXICITY RATING: Slightly toxic

48 hour static acute LC_{50} to *Daphnia magna* = 630 mg/L

48 hour no observed effect concentration is 180 mg/L based on no mortality or abnormal effects.

TOXICITY RATING: Slightly toxic

If released into the environment, see CERCLA in Section 14.

SECTION 13 TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME/HAZARD CODE - HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

ORM-E NA 9188

CONTAINS

- SODIUM NITRITE

SECTION 14 REGULATORY INFORMATION

The following regulations apply to this product.

FEDERAL REGULATIONS:

OSHA HAZARD COMMUNICATION RULE, 29 CFR 1910.1200:

Based on our hazard evaluation, the following ingredients in this product are hazardous and the reasons are shown below.

Sodium hydroxide - Severe irritant

Sodium nitrite - Systemic effects

Sodium molybdate - Irritant

Sodium hydroxide = Ceiling 2 mg/m³ ACGIH/TLV

Sodium molybdate (soluble, as Mo) = TWA 5 mg/m³ ACGIH/TLV

Sodium hydroxide = Ceiling 2 mg/m³ OSHA/PEL

Sodium molybdate (soluble, as Mo) = TWA 5 mg/m³ OSHA/PEL

CERCLA/SUPERFUND, 40 CFR 117, 302:

This product contains sodium nitrite, a Reportable Quantity (RQ) substance and if 400 pounds of product are released, it requires notification to the NATIONAL RESPONSE CENTER, WASHINGTON, D. C. (1-800-424-8802).



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NALCO 8325 LIQUID

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SECTION 14 REGULATORY INFORMATION

(CONTINUED)

SARA/SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986

(TITLE III) - SECTIONS 302, 311, 312 AND 313:

SECTION 302 - EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355):

This product does not contain ingredients listed in Appendix A and B as an Extremely Hazardous Substance.

SECTIONS 311 and 312 - MATERIAL SAFETY DATA SHEET REQUIREMENTS (40 CFR 370):

Our hazard evaluation has found this product to be hazardous. The product should be reported under the following EPA hazard categories:

- XX Immediate (acute) health hazard
- Delayed (chronic) health hazard
- Fire hazard
- Sudden release of pressure hazard
- Reactive hazard

SECTION 313 - LIST OF TOXIC CHEMICALS (40 CFR 372):

This product does not contain ingredients on the List of Toxic Chemicals.

TOXIC SUBSTANCES CONTROL ACT (TSCA):

The chemical ingredients in this product are on the 8(b) Inventory List (40 CFR 710).

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA), 40 CFR 261 SUBPART C & D:
Consult Section 11 for RCRA classification.

FEDERAL WATER POLLUTION CONTROL ACT, CLEAN WATER ACT, 40 CFR 401.15/
formerly Sec. 307, 40 CFR 116/formerly Sec. 311:

This product contains the following ingredients covered by the Clean Water Act:

Sodium nitrite - Section 311
Sodium hydroxide - Section 311

CLEAN AIR ACT, 40 CFR 60, SECTION 111, 40 CFR 61, SECTION 112:

This product does not contain ingredients covered by the Clean Air Act.

STATE REGULATIONS:

CALIFORNIA PROPOSITION 65:

This product does not contain any chemicals which require warning under California Proposition 65.

MICHIGAN CRITICAL MATERIALS:



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SECTION 14 REGULATORY INFORMATION

(CONTINUED)

This product does not contain ingredients listed on the Michigan Critical Materials Register.

STATE RIGHT TO KNOW LAWS:

The following states identify the ingredients shown below as hazardous:

California, Illinois, Pennsylvania - Sodium nitrite

California, Illinois, - Sodium molybdate

Regulated in those states using the TLV for sodium hydroxide as a criteria for listing.

SECTION 15 ADDITIONAL INFORMATION

None

SECTION 16 USER'S RESPONSIBILITY

This product material safety data sheet provides health and safety information. The product is to be used in applications consistent with our product literature. Individuals handling this product should be informed of the recommended safety precautions and should have access to this information. For any other uses, exposures should be evaluated so that appropriate handling practices and training programs can be established to ensure safe workplace operations. Please consult your local sales representative for any further information.

SECTION 17 BIBLIOGRAPHY

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MATERIAL SAFETY DATA SHEET

PRODUCT

NALCO 8325 LIQUID

Emergency Telephone Number

Medical (708) 920-1510 (24 hours)

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PREPARED BY: Ricky A. Stackhouse PhD., Toxicologist

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